

# **Southern Appalachian Cooperative Seismic Network Center for Earthquake Research and Information The University of Memphis**

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Final Abstract and Non-Technical Summary

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This is the final project summary for USGS Award 1434-HQ-98-AG-01932: "*Collaborative Research: The University of Memphis, The University of North Carolina at Chapel Hill, and Virginia Tech: The Southern Appalachian Cooperative Seismic Network.*" This agreement covers the CERI component of the SACSIN to perform network operations, and routine data processing, archiving, and dissemination for the purpose of seismic hazards evaluation and scientific studies in the Southern Appalachian Seismic Zone. This report includes a review of station operations, technical challenges, data processing modifications, and a brief explanation of near-future directions.

Fourteen seismographs were operated during the course of the project. Considerable effort was made to automate and streamline the location process and to increase real-time data exchange with cooperating networks. Currently 26 real-time data channels are incoming to SACSIN and 6 are outgoing. Additional effort was placed on improving data distribution to both the scientific community and to the public and has resulted in a ten-fold increase in access to the processed data. Added functionality has allowed analysis of teleseismic data to provide important information for researchers investigating hazards within the region.

As of January 1, 1999, the SACSIN PI from Chapel Hill, Chris Powell, has assumed the duties of CERI

Associate Director. This has facilitated cooperation to the extent that the previous two cooperating components of the SACSN now operate as one network.